REMARKS AND ARGUMENTS

Claims 1 -32 are presently in the case and are presented for reconsideration and further examination in view of the foregoing amendments and following remarks.

In the outstanding Office Action, the Examiner rejected Claims 1-16, 21-23, and 29-31 under 35 USC 112, Second paragraph as being indefinite; and rejected Claims 1-32 under 35 USC 103 as being obvious in view of the Ramaswamy et al. U.S. patent (No. 6,006,202) (hereinafter "the Ramaswamy patent"). All claims have been rejected and no claim stands allowed or allowable. In addition, the Examiner requested certain information about the prior art that was used by the Inventors in inventing the present invention.

By this amendment, a correction to the description of Figure 8 has been made, and an amendment to Claims 1, 9, 11, 21, 23 and 31 has been made by canceling the word "truncated," but no claim has been cancelled and no claim has been added. For the reasons stated below, it is submitted that no new matter has been added to the specification.

Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 11-16, 21-23, and 29-31 under 35 USC 112, Second paragraph as being indefinite. The Examiner stated:

> As per claims 1-16, 21-23, and 29-31, the phrase "truncated sales value" renders the claims indefinite because no definition is provided. For the purpose of examination, "truncated sales value" is interpreted to be the total sales prior to the point of inventory depletion.

Response

It is submitted that the Examiner has misinterpreted the word "truncated." The word truncated has been used according to its usual definition and usage. The sales value on those days in which there is a sellout is probably not the maximum amount of sales value that could have been made that day because the full draw was sold out and there were no more items to purchase. Thus, the sales value was less than it could have been and was referred to in the claims as being "truncated." However, since the claims already refer to the excluded sales as being at least those on the sellout days, the term "truncated" to describe the lower value of the sales value on a sellout is not needed. Therefore, as the easiest way to obviate the rejections, this word has been deleted from those claims in which it appeared. Also, for these reasons, it is submitted that not only has no new matter been introduced as the result of the deletion of this word, but also the claims have not been narrowed

Accordingly, it is submitted that the rejections of those enumerated claims as being indefinite has been obviated by the amendment to the claims. Therefore, it is respectfully requested that the rejections be reconsidered and withdrawn.

Rejections under 35 U.S.C. 103

The Examiner rejected all claims as being obvious over the Ramaswamy patent. The Examiner stated with respect to Claim 1, and by reference thereto to all of the independent claims:

> As per claim 1, Ramaswamy et al. disclose a computer implemented method for calculating the hidden demand for a consumer item at an occurrence of a sellout, the method comprising the steps of:
>
> (a) generating a new data set of sales values from the time series of sales values for the consumer item at the outlet, the new set of sales values

excluding the truncated sales value at at least the occurrence of the sellout (col. 3, lines 5-42' the system generates new sales values K, which defines lost sales within a time interval T from sales represented by variable Y, which the total of stock on hand plus on order. Both lost sales and stock on order represent hidden demand, and the new sales values K, defines only lost sales within a time interval T and does not include truncated sales over the observation period.
(b) Applying a statistical causal time series forecasting model of count data on the new data set of sales values to determine a forecasted mean demand value for the consumer item at the occurrence of the sellout (col. 1, lines 38-48); Ramaswamy et al. disclose the use of statistics and sales value calculation as a function of time in demand forecasting. Col. 3, lines 5-42; The system generates new sales values, Ki within a time interval T from sales represented by variable Yi defining the total of stock on hand plus on order, indicating a sellout. Abstract; The system calculates and analyzes average inventory and lost sales or demand); and
(c) Estimating the hidden demand at the occurrence of the sellout using a single parameter probability distribution with a parameter assuming the forecasted mean demand value (col. 1, liens 42-48); Ramaswamy et al. disclose the use of probability distribution functions in demand forecasting. Col. 3, lines 5-42; The system calculates hidden demand indicated by lost sales, expressed as variable Ki, and the realized demand, expressed as variable Di).

Ramaswamy et al. do not expressly disclose a seasonal forecasting model for perishable items. However, the method of Ramaswamy et al. can be used for seasonal or non-seasonal forecasting for perishable or non-perishable items. That the claimed method includes a seasonal forecasting model for perishable items does not distinguish the claim over the prior art since the intended use does not change the overall method. The intended use must resulting manipulative difference as compared to the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963).

Accordingly, it would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the method disclosed by Ramaswamy et al. in a seasonal forecasting model for perishable items in order to generate values of simulated demand over a given time horizon.

Response

Applicants respectfully traverse the rejections and respectfully submit that all three prongs for a *prima facie* case of obviousness have not been established for each of the rejections.

To establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all the claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

A *prima facie* case of obviousness must also include a showing of the reasons why it would be obvious to modify the references to produce the present invention. See Ex parte Clapp, 277 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). The Examiner bears the initial burden to provide some convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings. Id. at 974.

Applicants respectfully submit that all the claim limitations are not present in the cited references; and that the cited reference, the Ramaswamy patent, in fact teaches away from the presently claimed invention.

The present invention is essentially directed to a computer implemented method and system of calculating the hidden demand for a perishable item at an outlet at a sellout and a computer implemented method and system of evaluating the efficacy of a distribution policy for a consumer item at an outlet over an evaluation period. A sellout is defined in the specification as an industry term referring to an occasion where the demand is equal or greater than the quantity of an item available for sale. Thus, during a sellout, it is possible (and usually definite) that there could be more sales of such an item. An example of a sellout is when the number of

newspapers delivered by the company to a sales outlet during a specific period, such as a day, are completely sold out. The hidden demand would then refer to the number of newspapers that could have been sold during that day, but were not. This represents a loss of sales to the newspaper company. On the other hand, if too many newspapers are delivered to the sales outlet, then those newspapers not sold represent the number of returns and are a loss to the company. Therefore, the newspaper company would like to deliver the exact number of newspapers to a sales outlet that will be sold so that there are no returns, and no hidden demand. The present invention also provides for an evaluation of the distribution policy of the newspaper company so as to try to maximize profits from the sale of this perishable consumer item.

According to the method claimed in Claim 1, the method of the there claimed invention includes the three steps of generating a new data set of sales values from the actual values by excluding the sales value when there is a sellout; applying a forecasting model on the new data set to determine a forecasted mean demand value; and estimating the hidden demand using a single parameter probability distribution.

The Ramaswamy patent, on the other hand, implements an algorithm for a lost-sale inventory simulation for any specified demand distribution. It does this by having the selected demand distributions generate simulated demand values. The reference teaches the simulation of an inventory system where at discrete and periodic time intervals, an ordering decision is made at the beginning of the period according to the (s,S) policy. This policy states that if at the start of a time period the inventory position is below s, then an order is placed to bring it up to S. The

demand for the period is then realized (i.e. generated) and subtracted at the end of the period. The simulation system calculates the lost sales at the end of each period as:

K.sub.i =max(0,D.sub.i -W.sub.i) , where: W.sub.i =inventory level in period I;

D.sub.i =randomly realized demand in period I;

K.sub.i =Lost Sales in period I;

As a result, the Ramaswamy patent uses a simulation algorithm that provides sensitivity of average inventory levels and average lost sales with respect to changes in s and q(q=S-s) for specified demand distribution.

The Ramaswamy patent does not considers the sales data including sellouts in particular with purpose of evaluating a true demand evaluation. Specifically, this reference does not include the presently claimed steps in each of independent Claims 1, 9, 17, and 25 of generating a new time series of sales values from a previously obtained time series of sales values. This reference also does not include the presently claimed steps of using this new time series of sales values with a forecasting model to produce a mean demand value. Finally, this reference does not estimate the hidden demand using the actual sales as embodied in the forecasted mean demand value.

Dependent Claims 2, 10, 22,and 30 all claim the method of their independent claims from which they depend and are patentable at least for those reasons stated above. In addition each such claim claims the further use of a conventional Poisson probability distribution function using a specific relationship for the forecasted mean demand value according to the present invention. This relationship was obtained by the inventors using an non-empirical approach, but

rather is a formulation of ideas behind the invention. There is simply no teaching in the Ramaswamy patent of either the concept of the claimed relationship nor the practical implementation of it.

For at least the foregoing reasons, it is submitted that the remaining dependent claims which have not been mentioned are patentable over the Ramaswamy patent.

Accordingly, it is submitted that all of the claims in the application as originally filed are patentable over the Ramaswamy patent, and the indication of the allowance of such claims would be appreciated.

Request for Additional Information

In the Office Action, the Examiner also requested the following three classes of additional information, which are set forth below together with the response:

1. The names of all known products that have incorporated the claimed subject other than the cited Demantra product.

There are no known other products that use the present invention.

2. Each publication relied upon to draft the claimed subject matter.

As best recalled, the only publications that were utilized were a few of the patents of a competitor of the assignee of this application, I2 Company. However, the exact patents used are not known. In any event, the patents were only used as an example of the style of the claims, and were not used as prior art or as examples of subject matter that had to be claimed around.

3. The source of the equation shown in several dependent claims.

This equation was derived solely by the inventors without reference to any publication. As stated above, it was arrived at by using mathematical techniques that involved and incorporated the theories of the invention.

CONCLUSION

In light of the foregoing, Applicants submit that the application is in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicant

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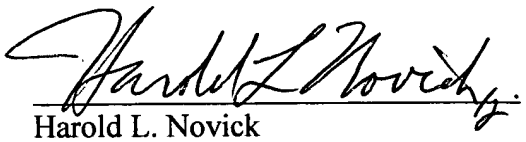
In light of the foregoing, Applicants submit that the application is in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicant

respectfully requests that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

Respectfully submitted,



Dated: November 6, 2006

Harold L. Novick
Reg. No. 26,011
Jerald L. Meyer
Reg. No. 41,194

NATH & ASSOCIATES PLLC
112 South West Street
Alexandria, VA 22314
Telephone: (202) 775-8383
Facsimile: (202) 775-8396